

CLAIMSWHAT IS CLAIMED IS:

1. An apparatus for supplying power over an optical link, the apparatus comprising:

a hybrid cable including an optical fiber and a conductor, wherein the optical fiber is configured to transmit an optical signal and the conductor is configured to transmit a power signal.

2. The apparatus of claim 1, wherein the optical fiber and the conductor are disposed internally within the hybrid cable.

3. The apparatus of claim 1, wherein the fiber and the conductor are coaxial in configuration.

4. The apparatus of claim 1, wherein the fiber is parallel to the conductor.

5. The apparatus of claim 1, wherein the conductor comprises copper.

6. The apparatus of claim 1, wherein the conductor comprises stainless steel.
7. The apparatus of claim 1, wherein the conductor comprises:
 - a twisted pair of solid conductor.
8. The apparatus of claim 1, wherein the conductor comprises:
 - a twisted pair of flexible conductor.
9. The apparatus of claim 1, wherein the conductor comprises a mesh configuration.
10. The apparatus of claim 1, further comprising:
 - an inner protection disposed between the optical fiber and the conductor.
11. The apparatus of claim 1, further comprising:
 - an outer protection disposed on the conductor.
12. The apparatus of claim 1, wherein the hybrid cable comprises:
 - a second optical fiber and a second conductor.

13. A network system, comprising:

a hybrid cable including an optical fiber and a conductor;

a first node;

a second node;

wherein the first node is configured to transmit an optical signal via the optical fiber to the second node, or alternatively the first node is configured to receive a second optical signal via the optical fiber from the second node; and

a power source configured to transmit a power signal via the conductor to the second node.

14. The apparatus of claim 13, wherein the optical fiber and the conductor are disposed internally within the hybrid cable.

15. The apparatus of claim 13, wherein the fiber and the conductor are coaxial in configuration.

16. The apparatus of claim 13, wherein the fiber is parallel to the conductor.

17. The apparatus of claim 13, wherein the conductor comprises copper.

18. The apparatus of claim 13, wherein the conductor comprises stainless steel.

19. The apparatus of claim 13, wherein the conductor comprises:

a twisted pair of solid conductor.

20. The apparatus of claim 13, wherein the conductor comprises:

a twisted pair of flexible conductor.

21. The apparatus of claim 13, wherein the conductor comprises a mesh configuration.

22. The apparatus of claim 13, further comprising:

an inner protection disposed between the optical fiber and the conductor.

23. The apparatus of claim 13, further comprising:

an outer protection disposed on the conductor.

24. The apparatus of claim 13, wherein the hybrid cable comprises:

a second optical fiber and a second conductor.

25. A method for supplying power over an optical link, the method comprising:

providing a hybrid cable in a network system, wherein the hybrid cable includes an optical fiber and a conductor; and

transmitting an optical signal along the optical fiber, and transmitting a power signal along the conductor.

26. The method of claim 25, wherein the optical fiber and the conductor are disposed internally within the hybrid cable.

27. The method of claim 25, wherein the fiber and the conductor are coaxial in configuration.

28. The method of claim 25, wherein the fiber is parallel to the conductor.

29. The method of claim 25, wherein the conductor comprises copper.

30. The method of claim 25, wherein the conductor comprises stainless steel.

31. The method of claim 25, wherein the conductor comprises:

a twisted pair of solid conductor.

32. The method of claim 25, wherein the conductor comprises:

a twisted pair of flexible conductor.

33. The method of claim 25, wherein the conductor comprises a mesh configuration.

34. The method of claim 25, further comprising:

an inner protection disposed between the optical fiber and the conductor.

35. The method of claim 25, further comprising:

an outer protection disposed on the conductor.

36. The method of claim 25, wherein the hybrid cable comprises:

a second optical fiber and a second conductor.

37. An apparatus for supplying power over an optical link, the apparatus comprising:

means for transmitting an optical signal along an optical fiber, and for transmitting a power signal along a conductor.